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## Abstract of the Disclosure

The amount of data produced in the process of recording even short hearing samples by means of a monitor (1) may be

5 considerably reduced by effecting a normalization to a range of values D and a subsequent nonlinear mapping to a second, preferably smaller range of values W. The result may be stored in an electronic memory. Further preferred measures are the spitting of the hearing samples into e.g. 6 signals each of which contains a respective frequency band of the original signal, and the conversion of the original amplitude values into energy variation values with simultaneous low pass filtering. Preferably, all cited processing steps are performed by a signal processor (9). A continuous recording time of up to 14 days by a monitor in the form of a wristwatch can thus be attained with state-of-the-art technology.

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(Fig. 1)